

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1, 3-4, and 6-7 remain in the application. Claim 1 has been amended. Claim 2 was previously cancelled. Claim 5 has been cancelled with this amendment.

In item 2 on page 2 of the above-identified Office action, the specification has been objected to because of an alleged informality.

More specifically, the Examiner has stated that the application fails to disclose the metes and bounds of the term "bright" and how such limitation can be measured.

The invention of the instant application is directed to a chemist or physicist who works in the area of nuclear technology and who would know that a native oxide layer forms on the component surface during operation. It concerns not several, but only one layer, the intensity of which increases naturally with the increasing operation period. What is to be understood as a native oxide layer is defined on page 6, line 20 to page 7, line 1 of the specification. It is explained on page 10, lines 5-8 of the specification what is to be

understood as bright surfaces, namely bright surfaces occur when an oxide layer has been removed. It is not to be understood, in the context of the invention of the instant application, that one of several partial oxide layers is removed. Otherwise, no bright surfaces would occur at all. The expression "bright" should be understood in the sense of "metallic bright" in the context of the field of the technology. It is, therefore, clear to a person skilled in the art that the suggested alcohol dosage takes place both with an existing native oxide layer and when such a layer does not exist, which is the case only in a short period of time after a new operation start or, as described in the last text passage, after a removal of the oxide layer (metallic bright component surfaces).

The Examiner is, therefore, requested to withdraw this objection.

In item 3 on page 2 of the above-identified Office action, claims 1 and 3-7 have been objected to because of informalities.

More specifically, the Examiner has stated that claim 1, lines 8-9 contain parenthesis. Appropriate correction has been made.

The Examiner has stated that claim 1, line 11 refers to the term "bright surfaces" and it is not clear from the disclosure of the application to what these terms refer and how such limitations can be measured.

Please see the discussion above in connection with the objection to the specification.

In item 4 on page 3 of the above-identified Office action, claims 1 and 3-7 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

More specifically, the Examiner has stated that there is no adequate description or enabling disclosure of how and in what manner the limitations of the term bright surfaces are to be interpreted.

Please see the discussion above in connection with the objection to the specification.

In item 5 on page 4 of the above-identified Office action, claims 1 and 3-7 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph.

More specifically, the Examiner has stated that the limitations in claim 1, lines 7-8 and claim 5, lines 1-2 are broader than the enabling disclosure.

The limitation of claim 5 has been added to claim 1, which is clearly supported by page 8, line 5 of the specification.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, first and second paragraphs. Should the Examiner find any further objectionable items, counsel would appreciate a telephone call during which the matter may be resolved. The above-noted changes to the claims are provided solely for cosmetic and/or clarificatory reasons. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claims for any reason related to the statutory requirements for a patent.

In item 6 on page 5 of the above-mentioned Office action, claims 1 and 3-4 have been rejected as being anticipated by SU-653953 under 35 U.S.C. § 102(b).

In item 7 on pages 5-6 of the above-mentioned Office action, claims 1 and 3-7 have been rejected as being anticipated by

Hettiarachchi (US Pat. No. 5,818,893) under 35 U.S.C. § 102(b).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references. However, the language of claim 1 has been modified in an effort to even more clearly define the invention of the instant application.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

providing an alcohol selected from the group consisting of methanol, ethanol, and propanol;

continuously feeding the alcohol into a primary coolant to maintain an alcohol concentration of from 0.1 to less than 10 μ mol/kg in a downcomer, the downcomer extending downward at an opening of the feedwater line, with surfaces of the components still being bright or covered only by a native oxide layer.

According to claim 1 of the instant application, the alcohol concentration is from 0.1 to less than 10 μ mol/kg. SU-653953 discloses an alcohol range, the lower limit of which is 10

$\mu\text{mol/l}$ ($=10^{-5}$ mol/l). Therefore, SU-653953 does not anticipate claim 1 of the instant application.

As discussed in detail in the previous response, Hettiarachchi discloses the in-situ palladium doping of stainless steel surfaces of nuclear reactors. However, Hettiarachchi does not disclose the feeding of ethanol in order to form oxidizing radiolysis products on the steel surfaces. The following example of introduction of the alcohol is purely random: in connection with the production of a solution containing palladium acetylacetonate, the acetylacetonate is dissolved in 40 ml of ethanol and then an additional 10 ml of ethanol is added. Finally, it is diluted with water to a volume of 1 l. This solution thus contains altogether 50 ml of ethanol. A concentration of 0.99 mol/l or 990000 $\mu\text{mol/l}$ is obtained with an ethanol density of 0.794 g/l and a mol-weight of 40.07 g/mol. In order to test the palladium doping, this solution is continuously injected into an autoclave in a flow loop so that the palladium has a concentration of 50 ppb. Comparing this concentration with the output concentration of the solution, namely 52.6 mg ($=52.6$ ppm) of palladium acetylacetonate, a maximum dilution factor is 1000. The alcohol concentration would thus be maximally diluted to about 990 $\mu\text{mol/l}$. See column 9, lines 41-67 of Hettiarachchi. This

concentration is much greater than that of the invention of the instant application.

The Examiner has stated in the first paragraph on page 6 of the final Office action that equal volumes of liquids contain the same number of molecules. Applicants do not understand the intent of this statement, which is normally considered incorrect.

With regard to the Examiner's response to arguments in items 8 and 9 of the final Office action, it is noted that according to claim 1 of the instant application, an alcohol concentration is "established." Applicants believe that a person skilled in the art would interpret this limitation in the sense of maintaining. In addition, the word "maintain" is also used in the specification in connection with the alcohol concentration (see page 8, line 15). Nevertheless, the word "establish" has been replaced with the word "maintain" to facilitate prosecution. In consideration of the Examiner's comments in item 9(a) on page 7 of the final Office action, the word "continuously" has also been added to claim 1 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either

show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1, 3-4, and 6-7 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out. In the alternative, the entry of the amendment is requested as it is believed to place the application in better condition for appeal, without requiring extension of the field of search.

Petition for extension is herewith made. The extension fee for response within a period of two months pursuant to Section 1.136(a) in the amount of \$450.00 in accordance with Section 1.17 is enclosed herewith.

Please charge any fees which might be due with respect to 37

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CFR Sections 1.16 and 1.17 to the Deposit Account of Lerner
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Respectfully submitted,

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